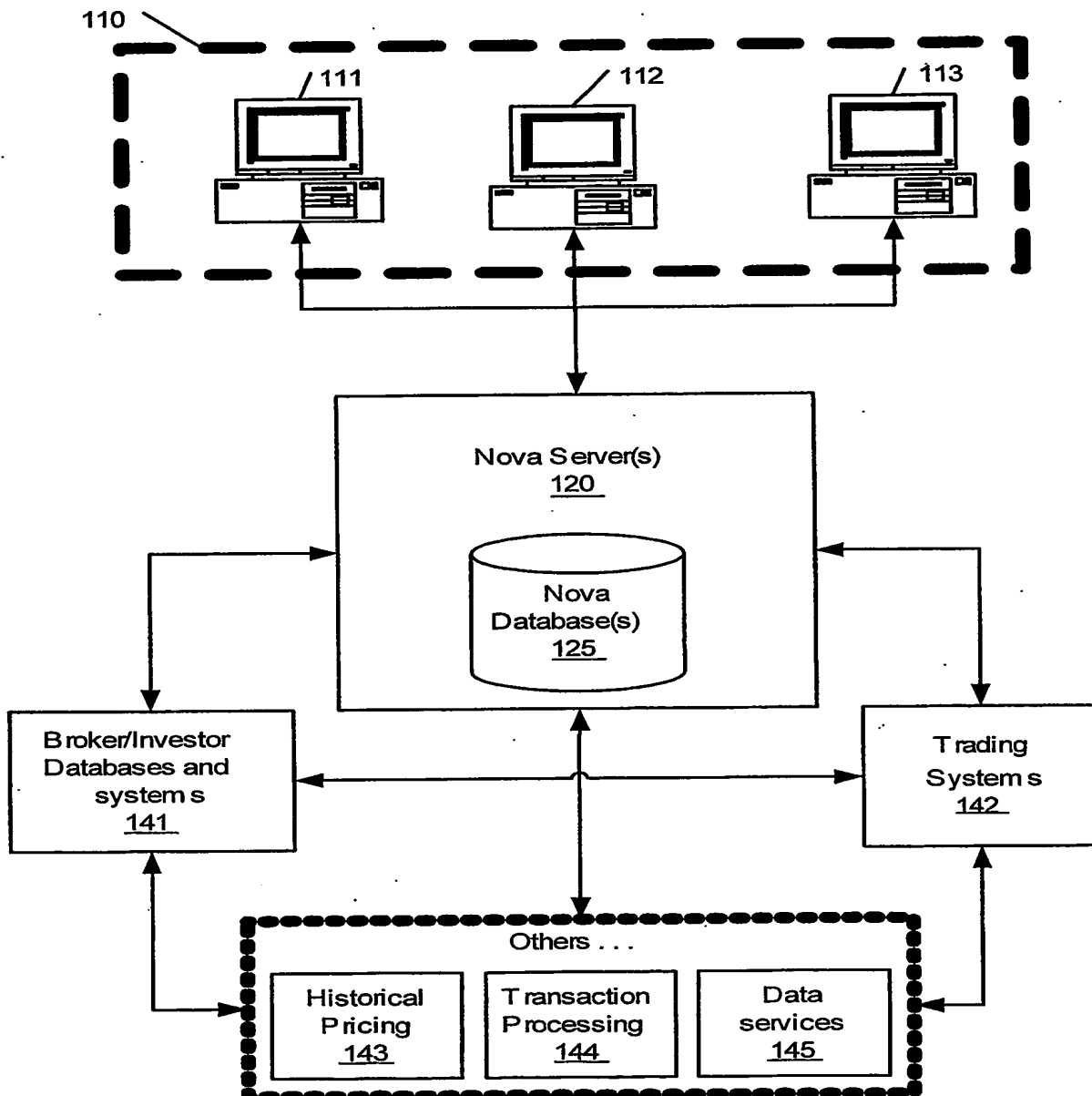


100

Fig. 1



# Application Environment

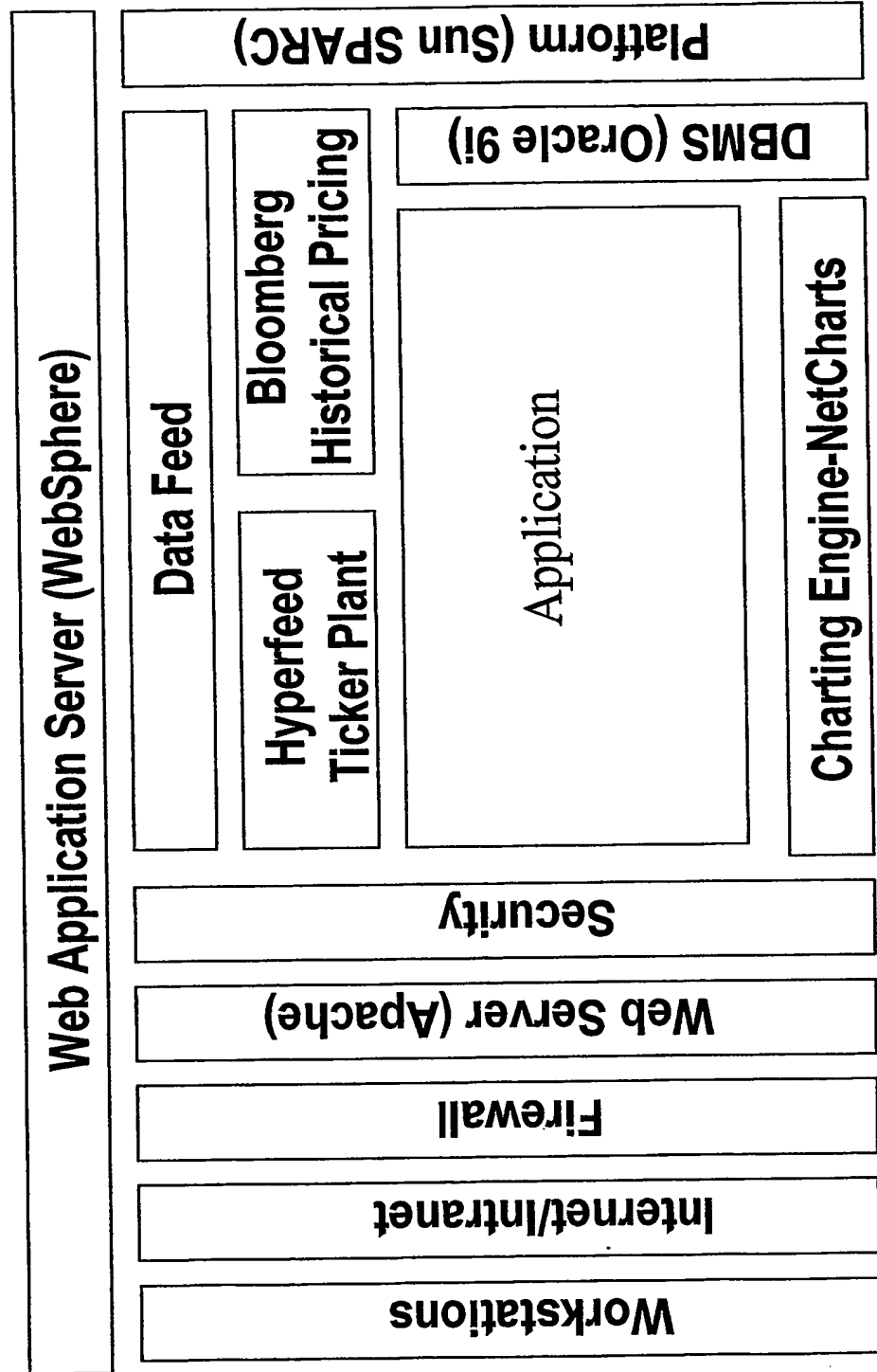


Fig. 2

# Application Flow

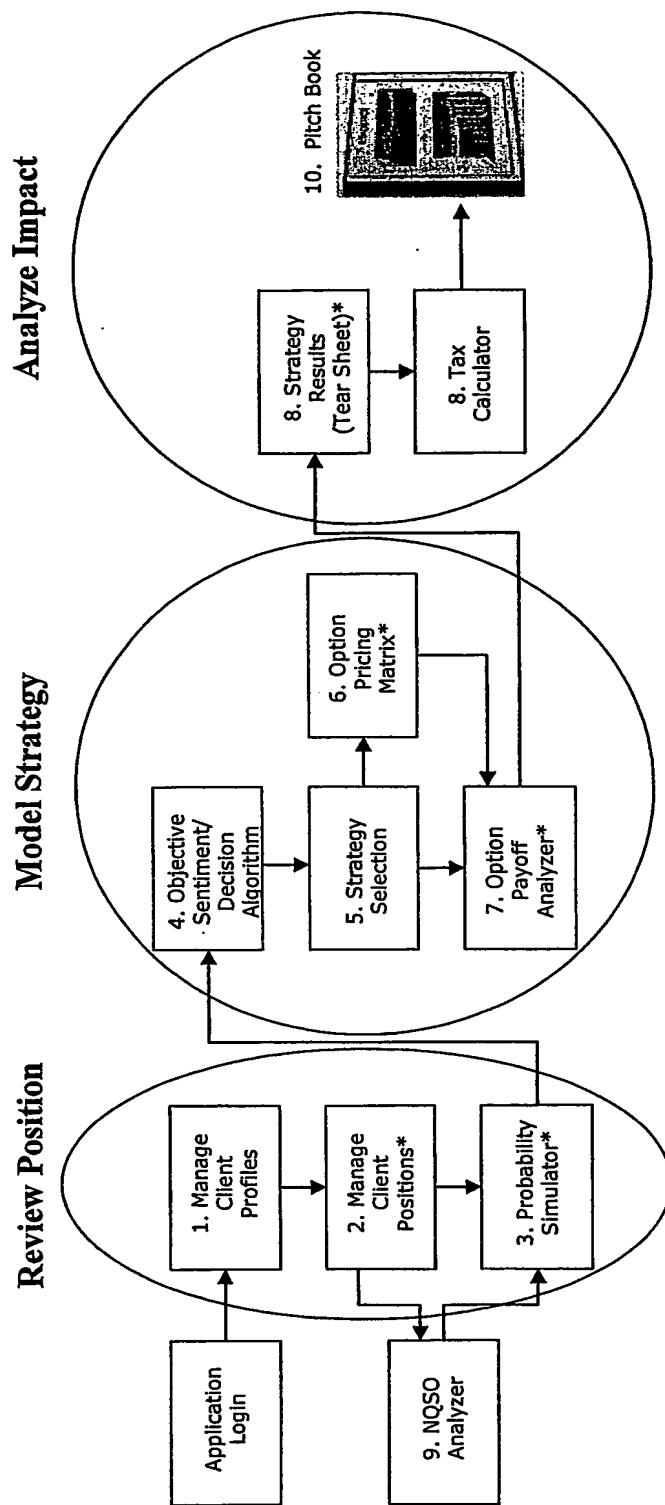
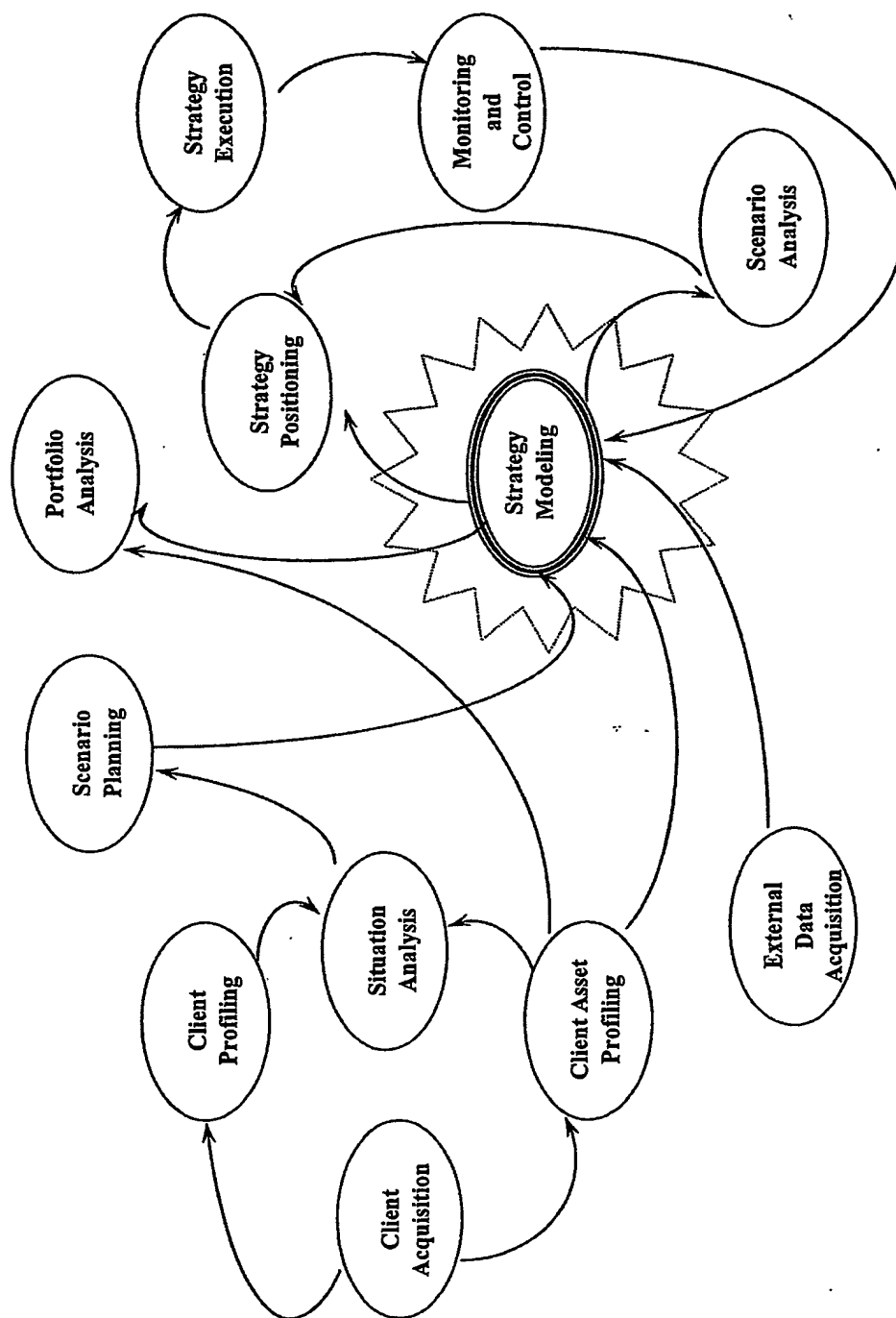


Fig. 3

**Risk Management--Orientation Diagram**



**Fig. 4**

Fig. 5 - Comparison of Protection Strategies

Strategy	Purpose			Trade Structure	General Characteristics
	Downside Protection	Upside Appreciation	Other		
Call Spread Collar	Yes	Limited		1. Buy OTM Put 2. Sell OTM Call 3. Buy OTM Call	<ul style="list-style-type: none"> <li>Client establishes floor price below current spot</li> <li>Client finances cost of downside insurance</li> <li>Structured to eliminate need to pay option premium</li> </ul>
Cashless Collar	Yes			1. Buy OTM Put 2. Sell OTM Call	<ul style="list-style-type: none"> <li>Client establishes floor price below current spot</li> <li>Client finances cost of downside insurance</li> <li>Structured to eliminate need to pay option premium</li> </ul>
Credit Collar	Yes		Generates Cash flow	1. Buy OTM Put 2. Sell more OTM Calls	<ul style="list-style-type: none"> <li>Client establishes floor price below current spot</li> <li>Client finances cost of downside insurance</li> <li>Structured so call premium &gt; cost of put creating net credit</li> </ul>
Participating Collar	Yes	Complete on portion		1. Buy OTM Puts 2. Sell fewer OTM Calls	<ul style="list-style-type: none"> <li>Client establishes floor price below current spot</li> <li>Client finances cost of downside insurance</li> <li>Structured to eliminate need to pay option premium</li> </ul>
Prepaid Variable Forward	Yes		Monetization of Position	1. Buy Put 2. Sell Call	<ul style="list-style-type: none"> <li>Sells position in forward transaction</li> <li>Protects position with embedded collar that will determine number of shares to be delivered to finalize sale.</li> </ul>
Protective Put	Yes			1. Buy ATM Puts	<ul style="list-style-type: none"> <li>Client establishes protective position with ATM Puts</li> </ul>
Put Spread	Limited			1. Buy Put 2. Sell Put	<ul style="list-style-type: none"> <li>Client establishes protective position with ATM Puts</li> <li>Similar to Protective Put but with reduced total premium</li> </ul>
Put Spread Collar	Limited	Yes		1. Buy OTM Put 2. Sell more OTM Puts	<ul style="list-style-type: none"> <li>Client establishes the put spread decreasing total premium</li> <li>Client finances cost of put spread</li> <li>Structured to eliminate need to pay option premium</li> </ul>

Fig. 6 - Strategy Performance

Strategy	Position Price	Status	Retain stock but forgo appreciation	Receive cash strike and the underlying expiration	Maximum outperformance at strike of two short options	No effect	Special
Cashless Collar	Above Call Strike	Call ITM	X				
	Below Put Strike	Put ITM		X			
Credit Collar	Above Call Strike	Call ITM	X				
	Below Put Strike	Put ITM		X			
Put Spread Collar	Above Call Strike	Call ITM	X				
	Below Long Put Strike	Long Put ITM		X			
	Below Short Put Strike	Short Put ITM					Must settle difference between the spot and short put strike less amount of spread
Prepaid Variable Forward	Need more info	Need more info					Client receives a set payment amount per share on a forward basis OR Delivers a variable number of shares to counterparty at expiry of trade based on close of the underlying and prepayment value
Participating Collar	Above Call Strike	Call ITM	X				
	Below Put Strike	Put ITM		X			
Call Spread Collar	Above Short Call Strike	Short Call ITM		X			
	Above Long Call Strike	Long Call ITM		X			
	Below Put Strike	Put ITM	X				
Protective Put	Below Long Put Strike	Put ITM		X			OR - Deliver stock and receive cash value of stock
Put Spread	Below Long Put Strike	Put ITM		X			OR - Deliver stock and receive cash value of stock
Call Write	Above Call Strike	Call ITM					Let shares be called away at strike price
Bull Butterfly	Any level between Wings	Butterfly ITM			X		
	Stays flat or Runs Past Spread	Neutral				X	
Bear Butterfly	Any level between Wings	Butterfly ITM			X		
	Stays flat or Runs Past Spread	Neutral				X	

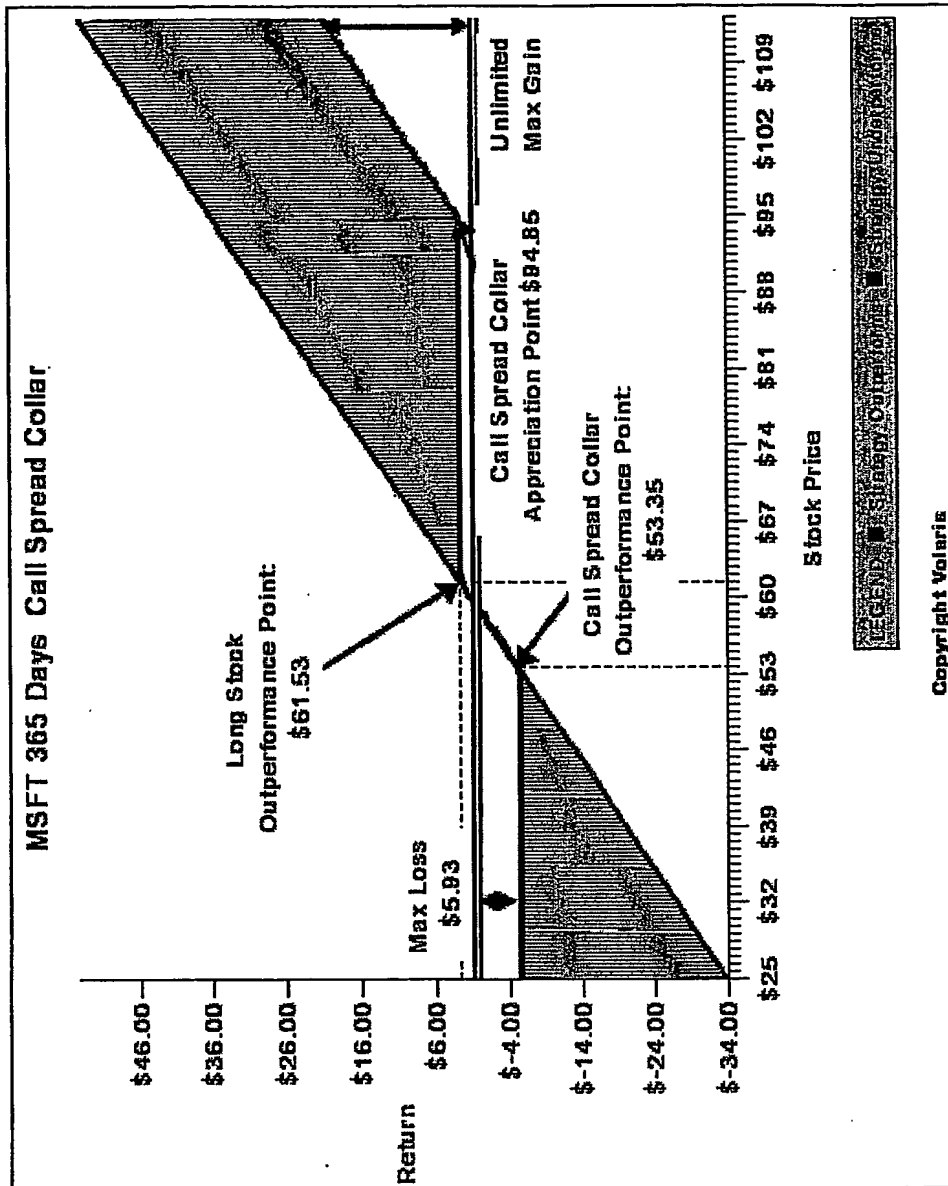


Fig. 7

Fig. 8



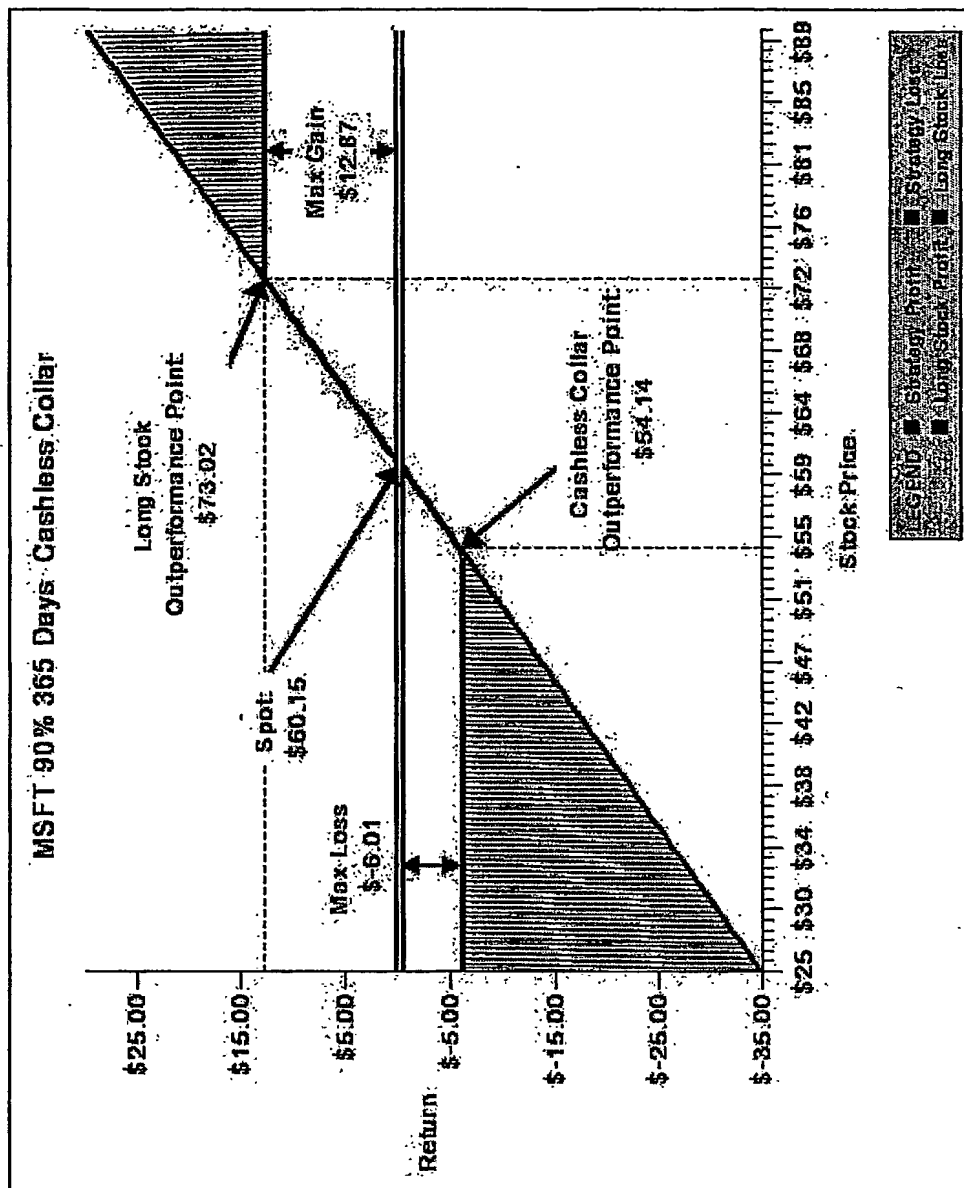


Fig. 9

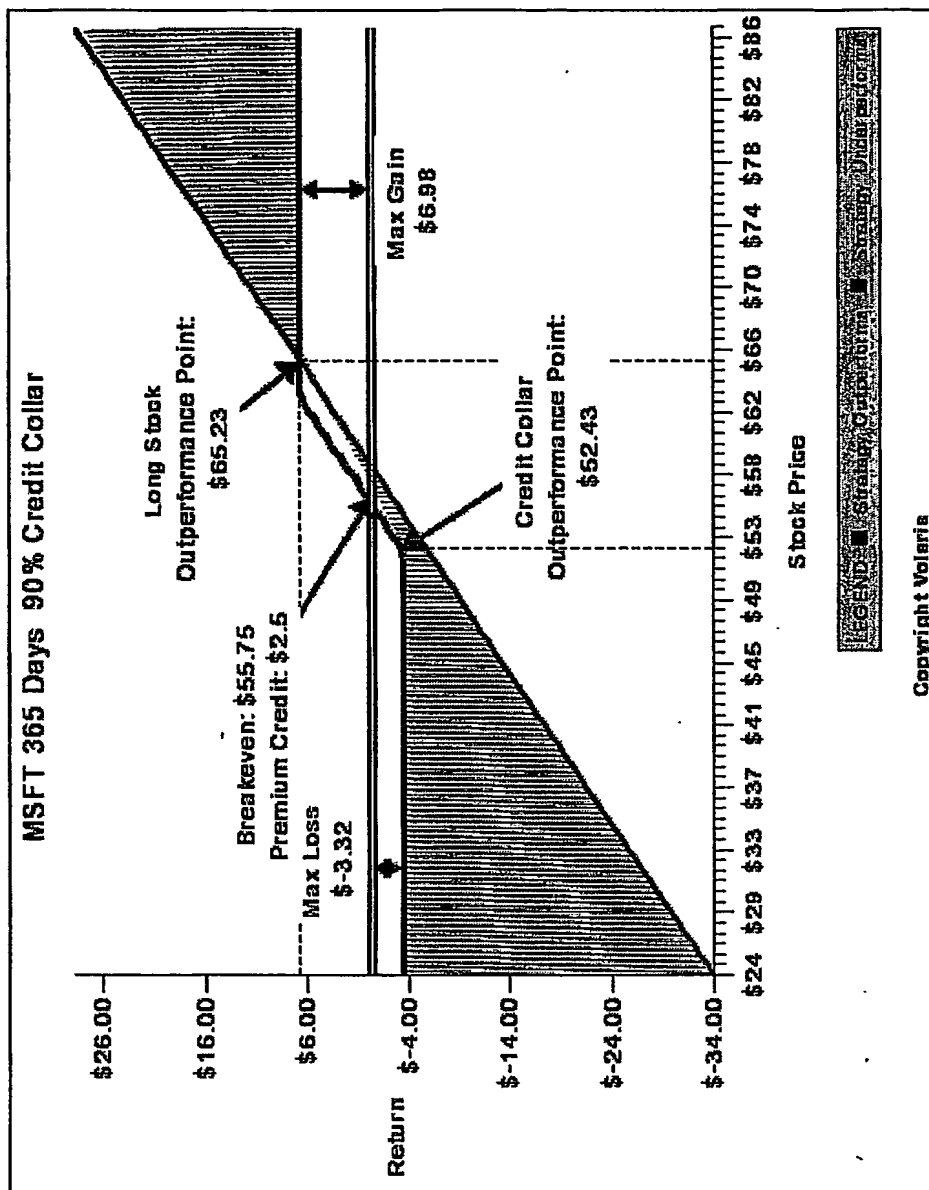


Fig. 10

Open | Save | Print | Help

Participating Collar

Buy/Put Sell/Call	Qt	Strike(%)	Strike(\$)	Time-To-Maturity	Pricing Volatility(%)	Interest Rate(%)	Proportion	Premium	Delta	Gamma	Heta	Vega	Rho
1 Buy Put	1.0	90.0	\$51.69	365 Day	48.62	2.13	49.31%	\$-7.37	-0.311	0.0129	-0.018	0.201	-0.208
2 Sell Call	0.75	107.75%	\$61.88	365 Day	48.62	2.13%	36.21%	\$7.37	-0.415	-0.0106	0.018	-0.17	-0.165
Total								\$0.0	-0.726				

Please enter the participating % of shares: 75.0 %

Back to Equity Parameters | Calculate | Capture

Fig. 11

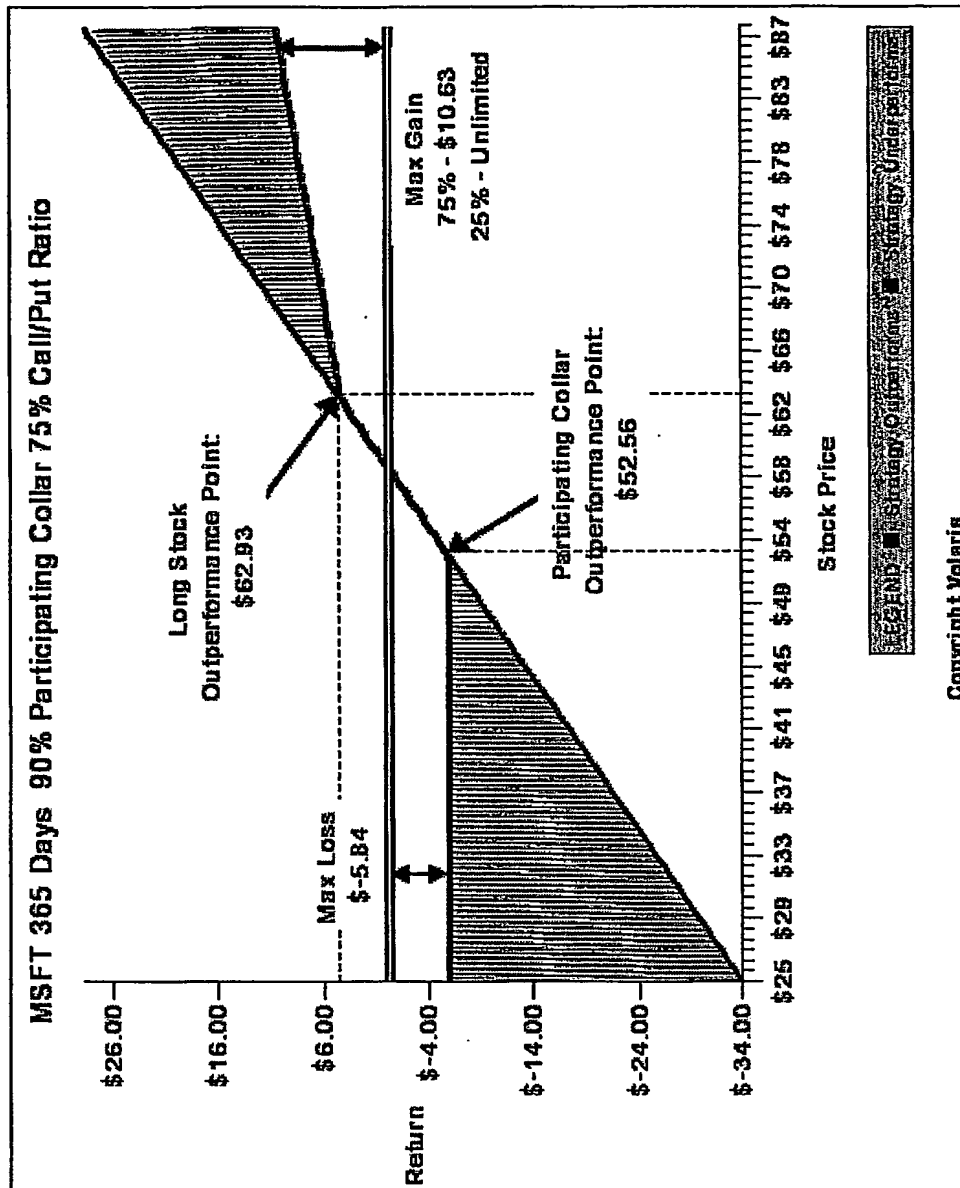


Fig. 12

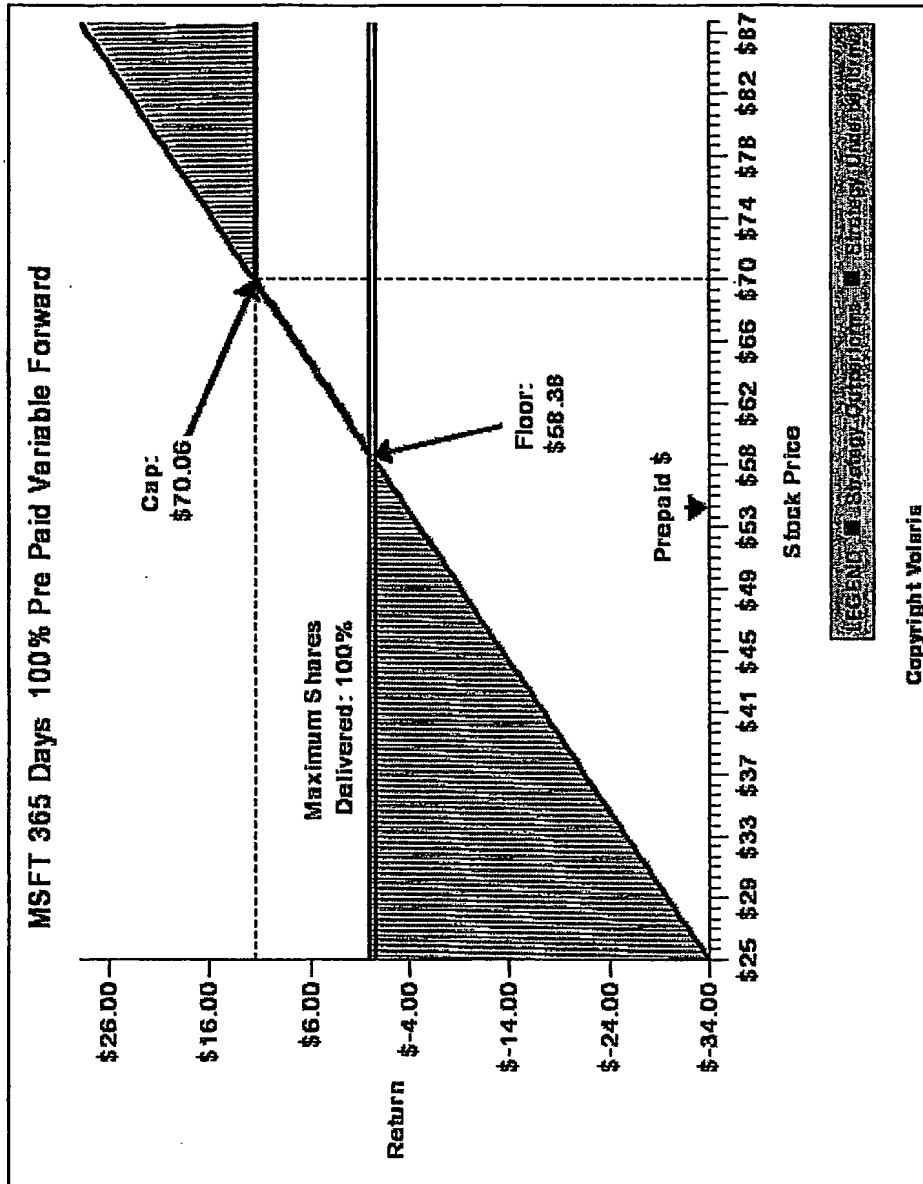


Fig. 13

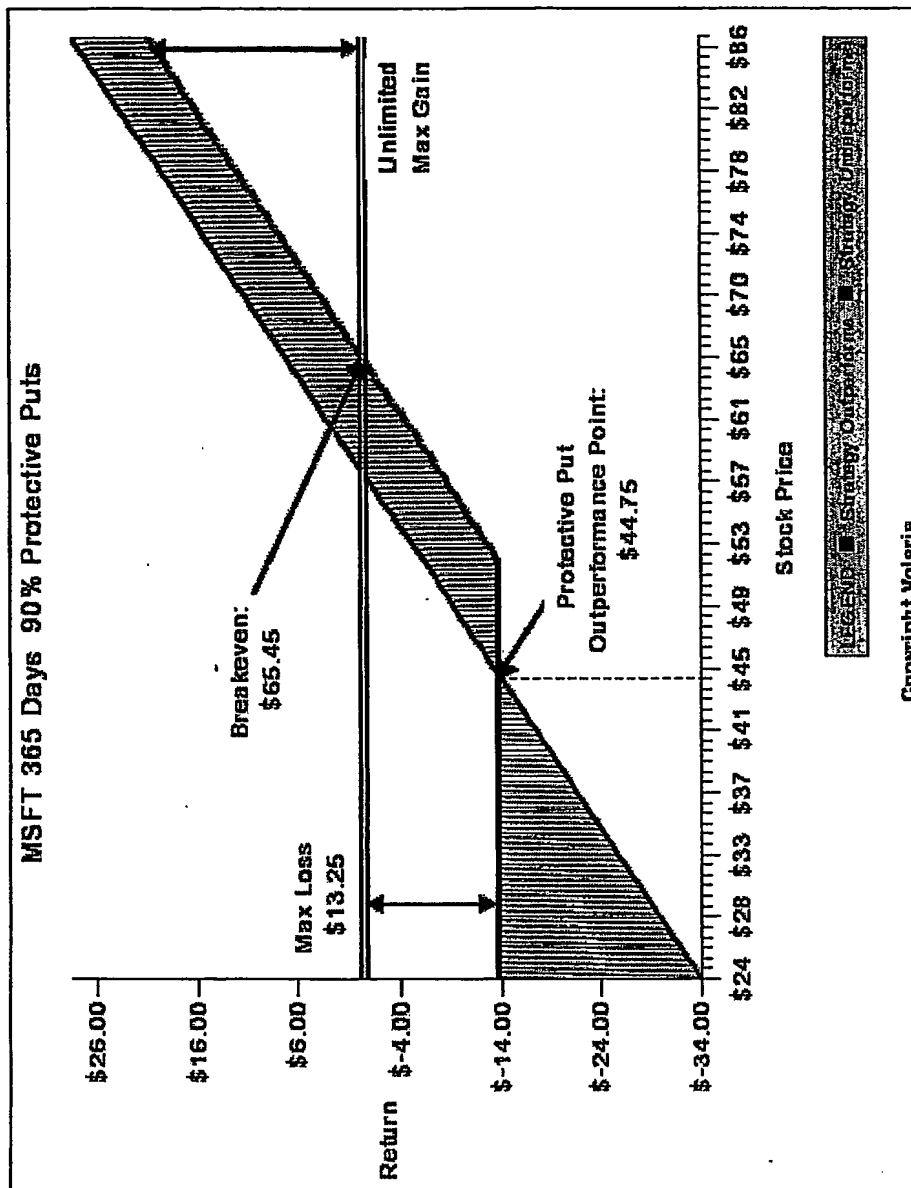


Fig. 14

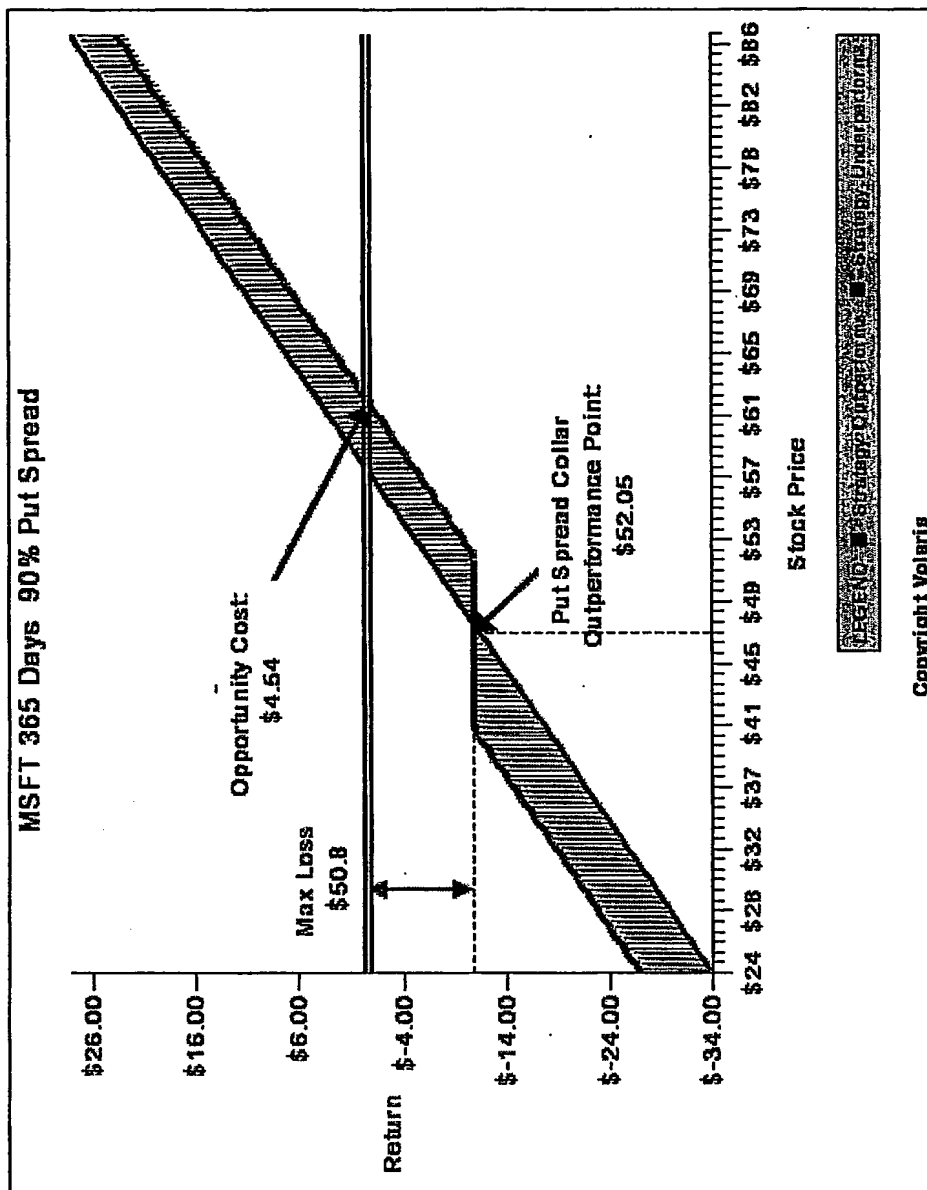


Fig. 15

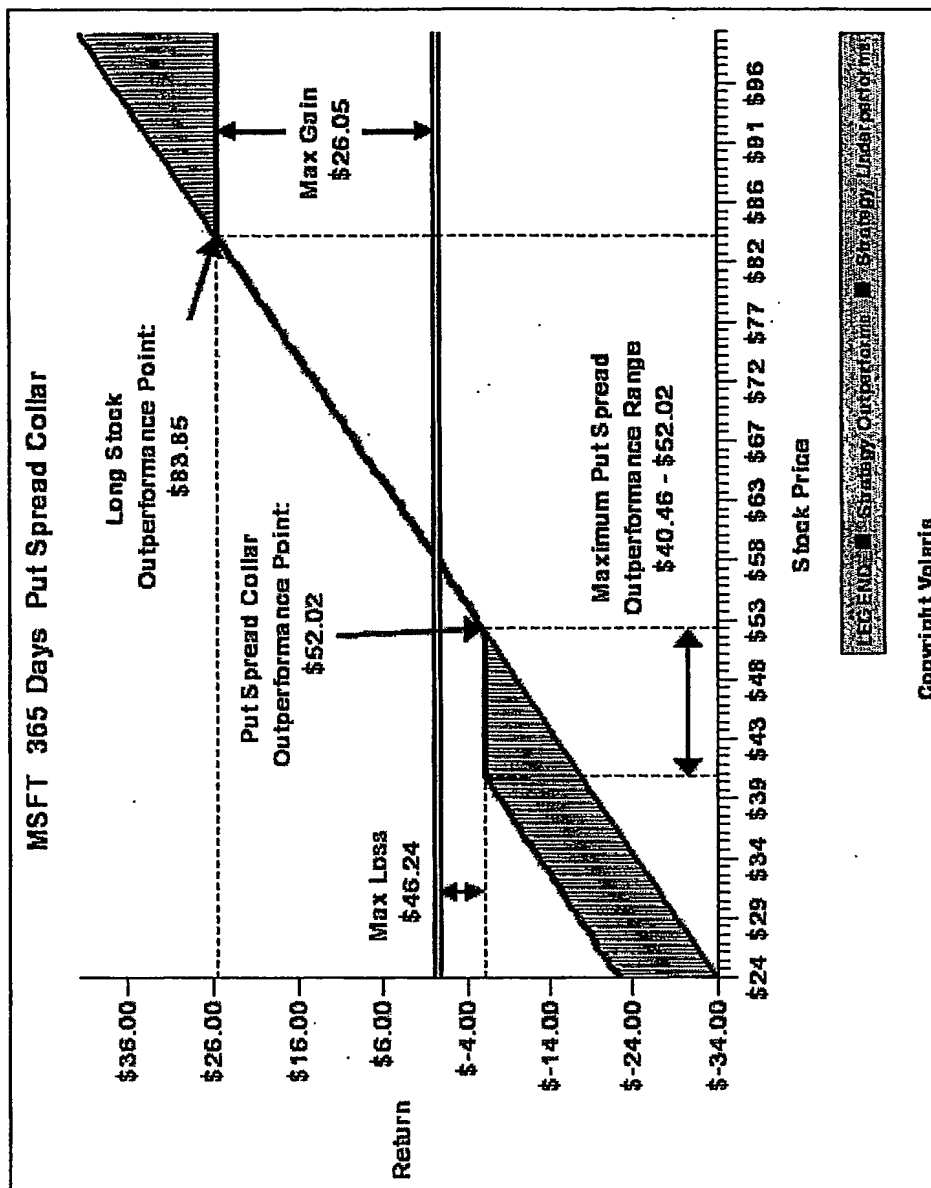


Fig. 16



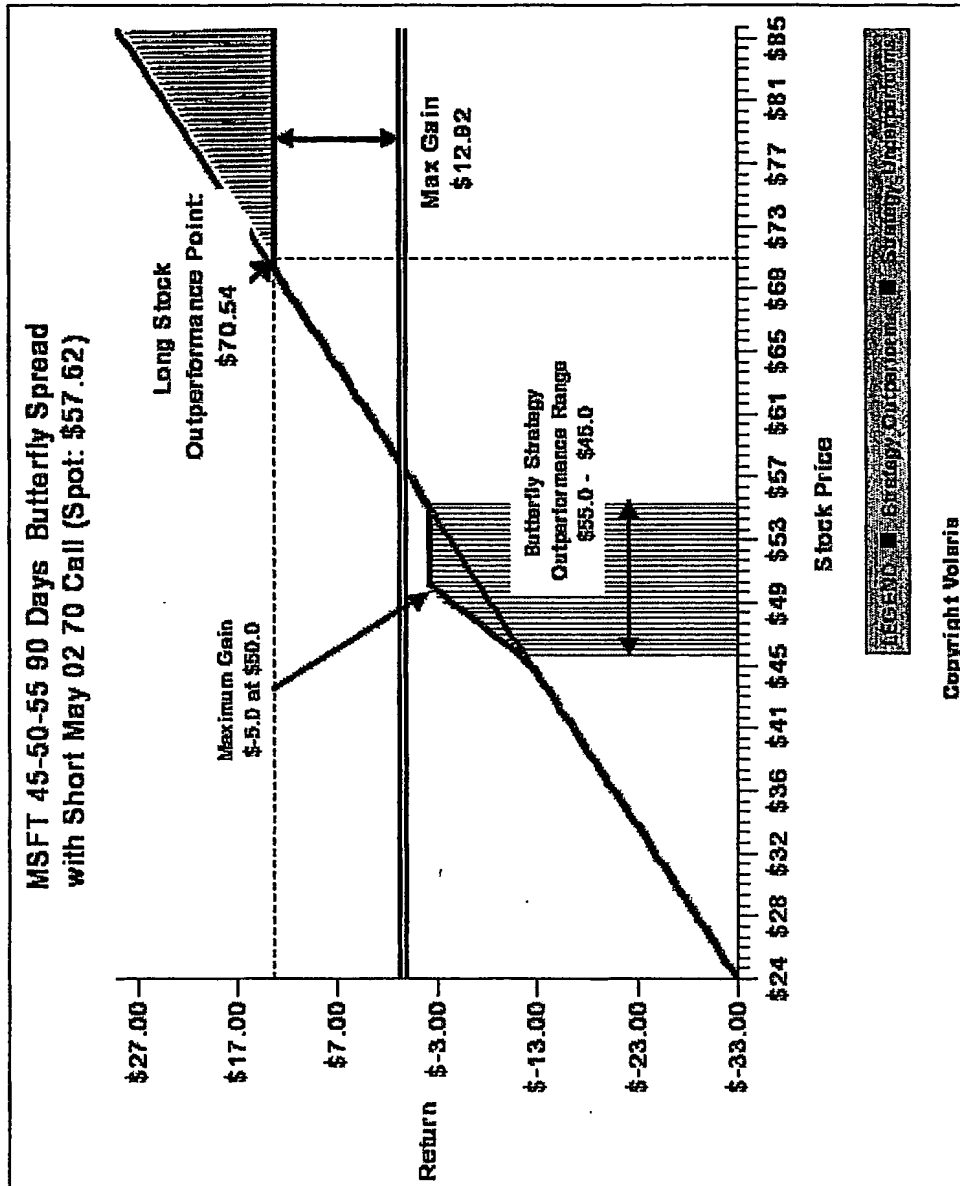


Fig. 17

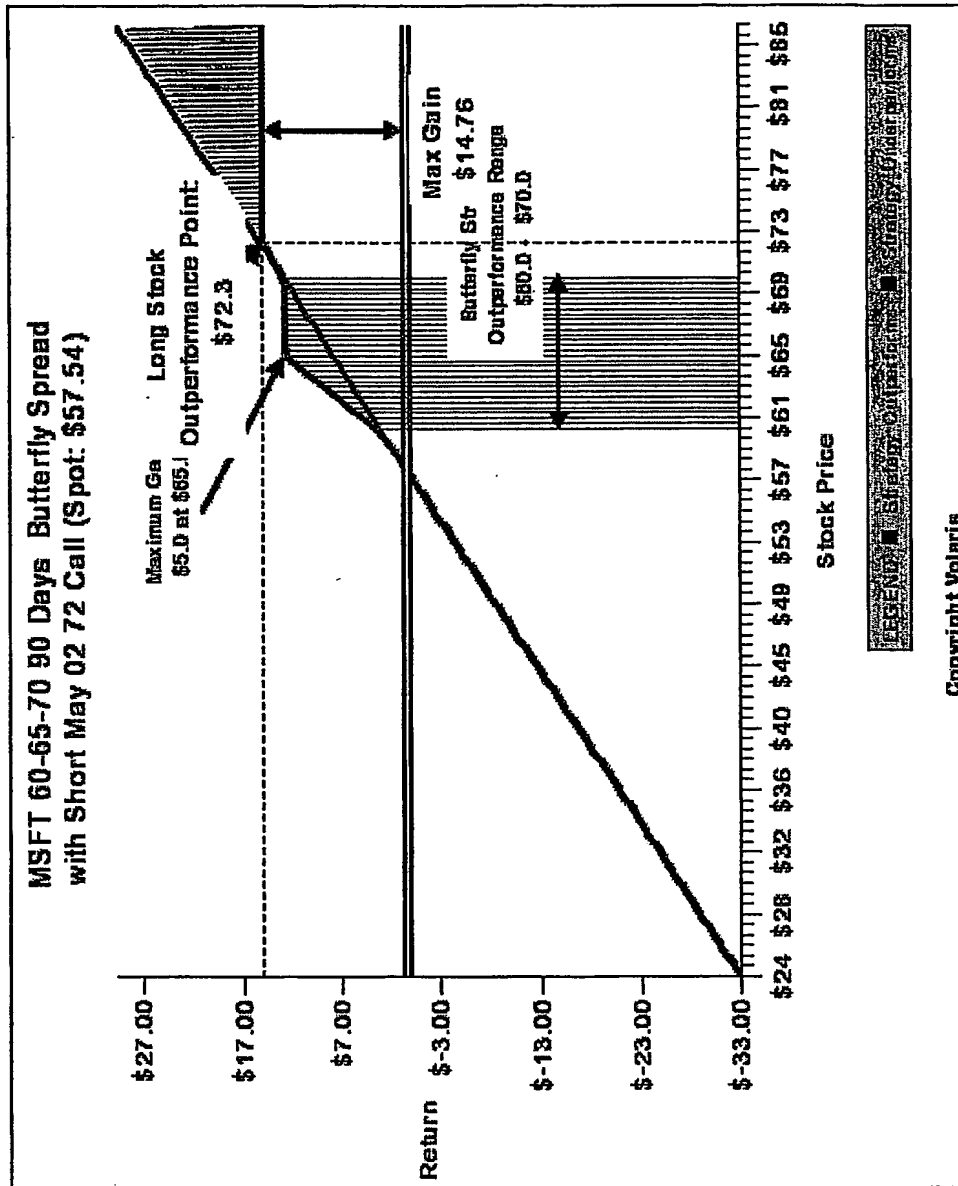


Fig. 18

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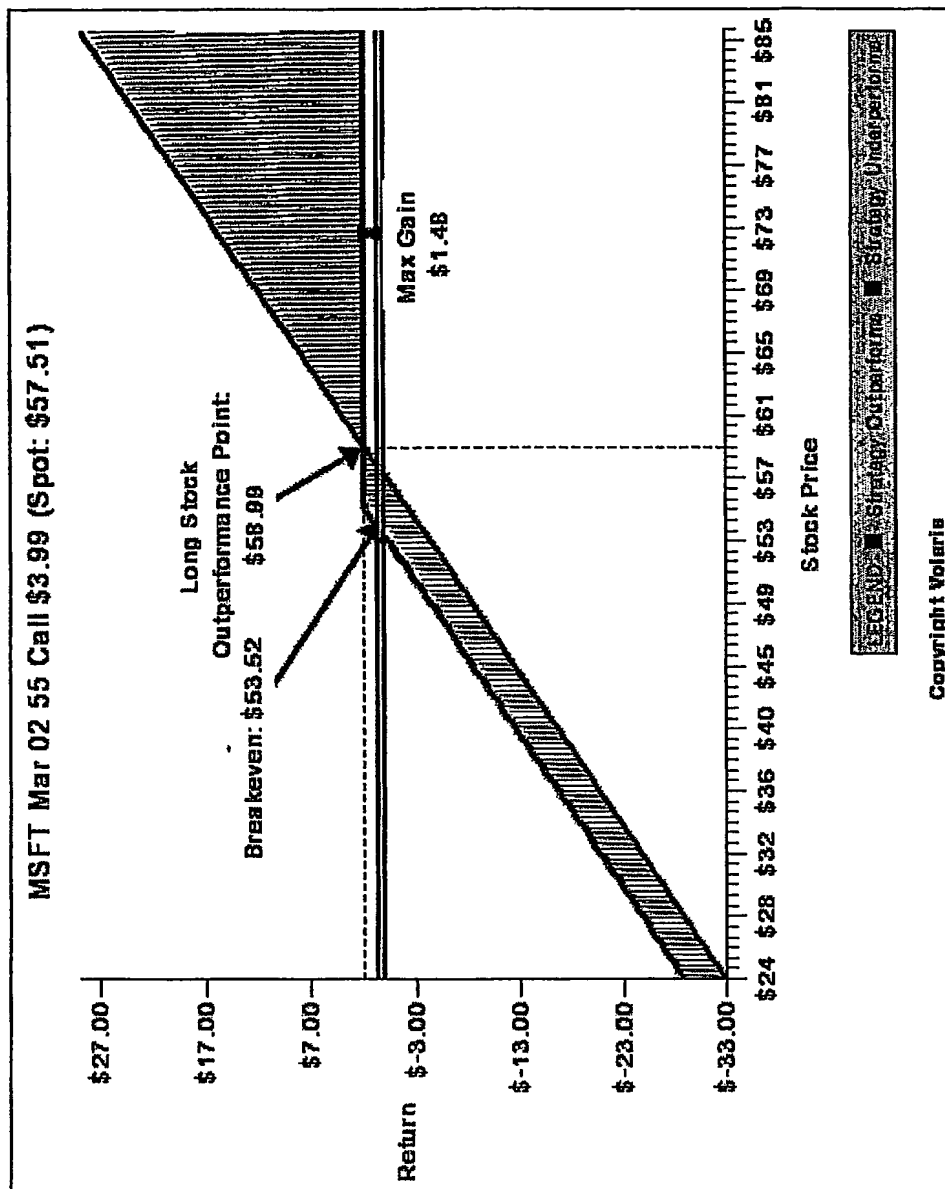


Fig. 19

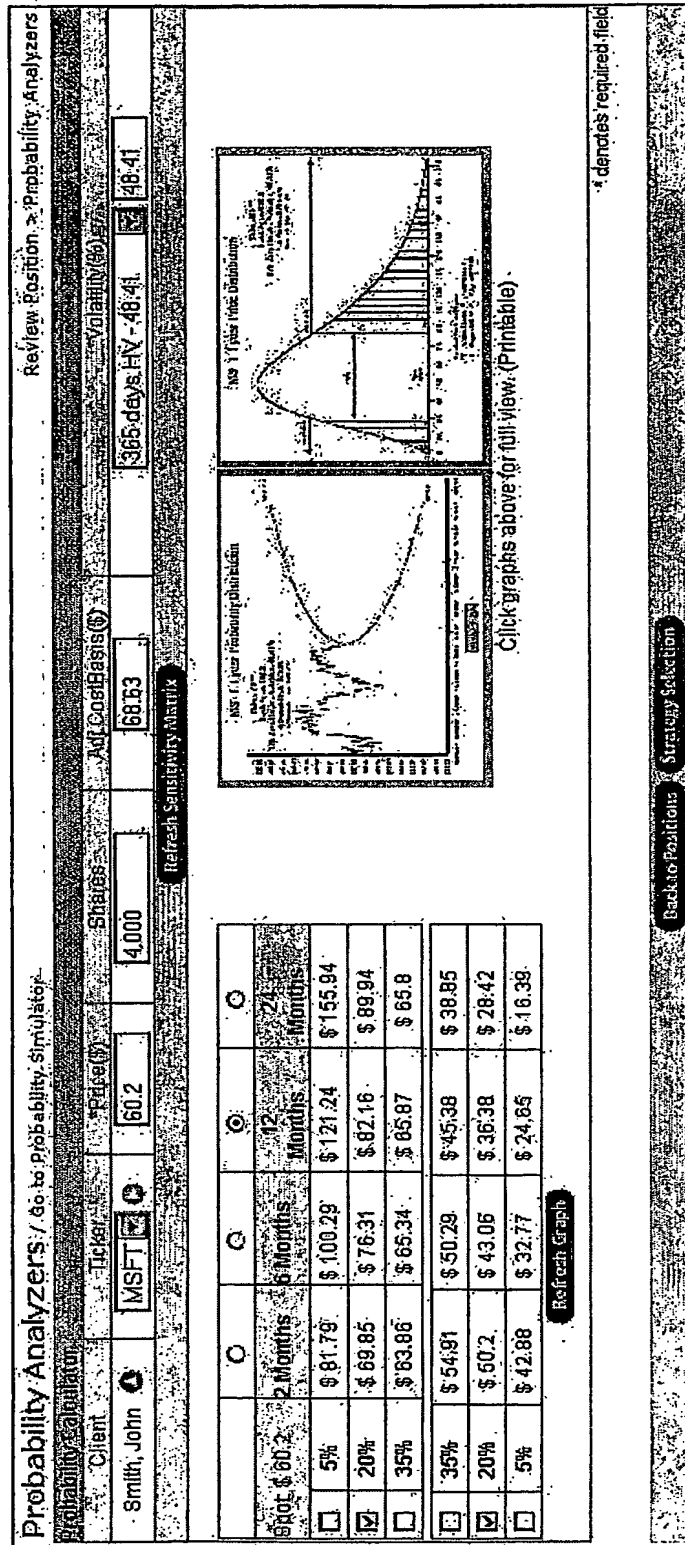


Fig. 20

	0	6	12	24
Months	Months	Months	Months	Months
8801.5				
507				
35%	\$72.41	\$89.53	\$98.18	\$118.26
20%	\$65.38	\$70.0	\$74.75	\$92.84
5%	\$59.2	\$63.31	\$67.83	\$87.63
35%	\$65.86	\$73.48	\$80.92	\$98.13
20%	\$57.81	\$63.35	\$67.43	\$83.37
5%	\$47.68	\$50.43	\$53.53	\$67.64

Upside Probability

Downside Probability

Refresh Graph

Fig. 21

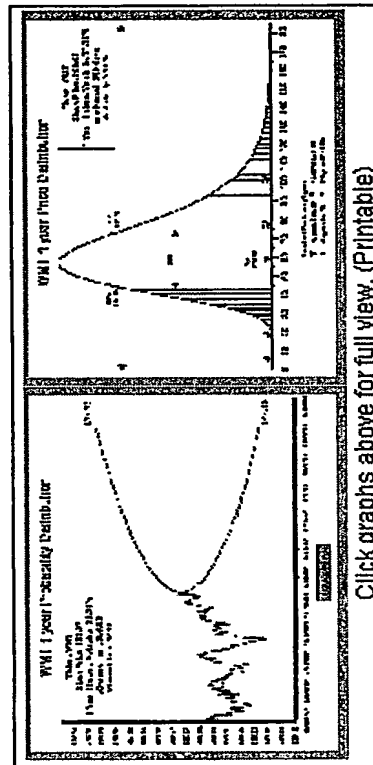


Fig. 22

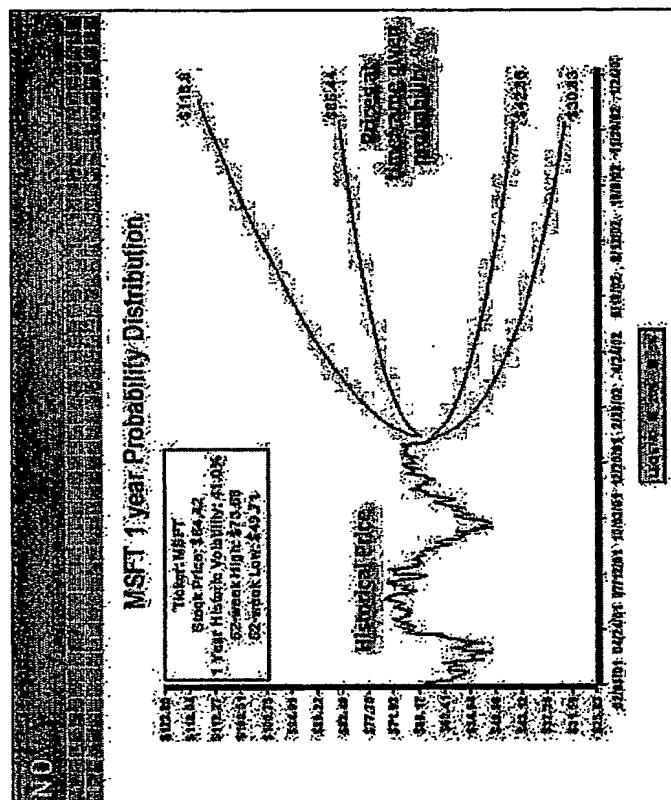


Fig. 23

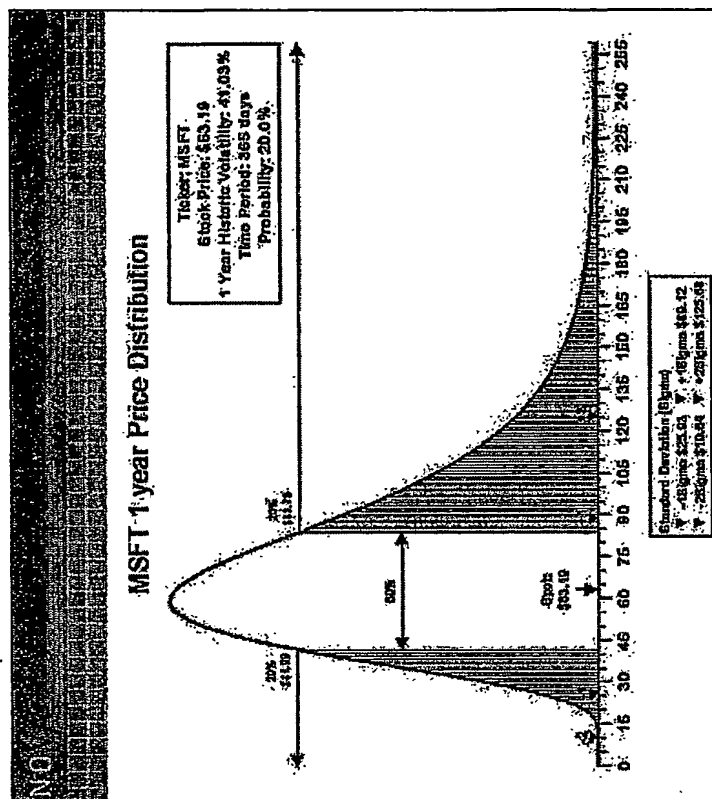


Fig. 24

Probability Analyzers / Go to Probability Calculator

Review Position > Probability Analyzers

Client: Smith, John MSFT 58.55 365 days HV - 48.62 68.63 4.000

Day: 365 High: 81.97 Low: 23.42

Monte Carlo Simulation: 1000 # of iterations

Simulation: ☐ Closed Form Calculation ☒ Monte Carlo Simulation

Calculate

Simulation	Output	High (%)
Closes Beyond	0.0	
Ever Touches	0.0	
Closes Below	0.0	
Ever Touches	0.0	

Click graphs above for full view (Printable)

\* denotes required field

Fig. 25

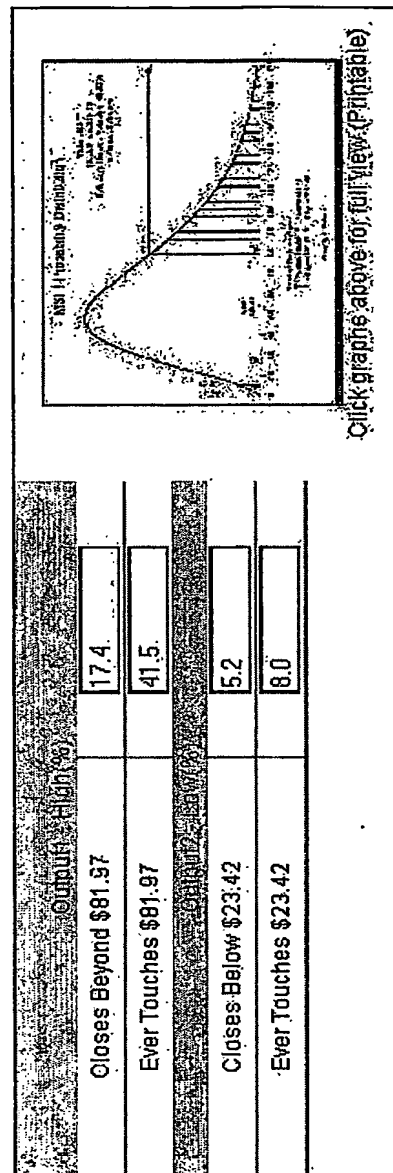


Fig. 26



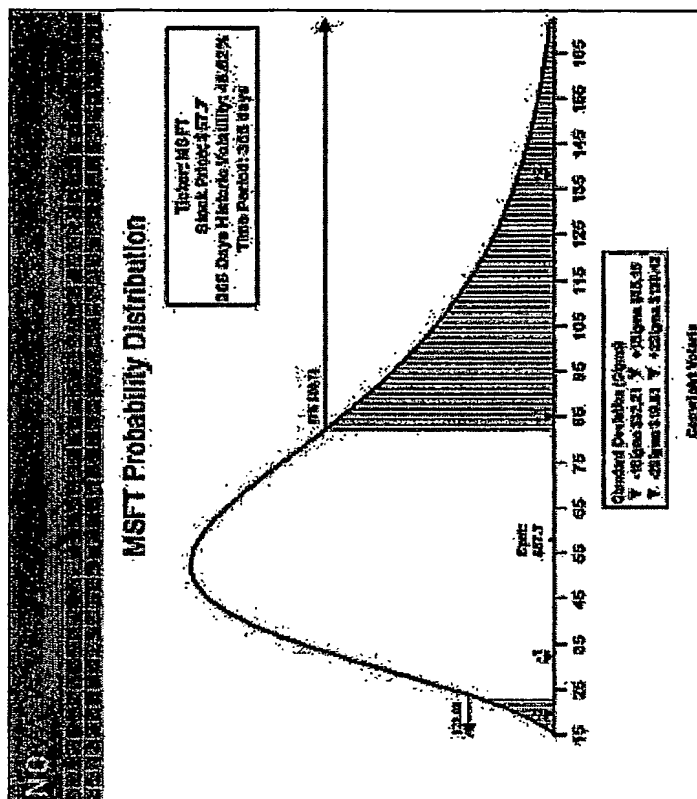


Fig. 27

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